

1      **CLAIMS**

3      1.      A method, comprising:

4      receiving an alert for a user from one of multiple alert sources;

5      mapping the alert to a delivery mode; and

6      transmitting the alert to the user according to the specified delivery mode.

7      2.      The method as recited in claim 1, wherein mapping the alert further

8      comprises mapping the alert according to the source of the alert.

10     3.      The method as recited in claim 1, wherein mapping the alert further

11     comprises mapping the alert according to alert content.

13     4.      The method as recited in claim 1, wherein the delivery mode

14     specifies a delivery method used to deliver the alert and wherein the transmitting

15     further comprises transmitting the alert to the user via the delivery method

16     indicated in the delivery mode.

18     5.      The method as recited in claim 1, wherein the delivery mode

19     specifies a delivery action that indicates a delivery method to be used to deliver

20     the alert and whether an acknowledgement to the alert should be expected, and the

21     method further comprises waiting for an acknowledgement to the alert if the

22     delivery mode indicates that an acknowledgement to the alert should be expected.

1       6. The method as recited in claim 5, wherein the delivery action  
2 specifies a time period to wait for an acknowledgement if an acknowledgement to  
3 the alert is expected, and wherein the waiting further comprises waiting the  
4 specified time period for an acknowledgement to the alert.

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6       7. The method as recited in claim 1, wherein:  
7           the delivery mode further specifies a first delivery method used to deliver  
8 the alert;

9           the delivery mode further specifies a second delivery method used to  
10 deliver the alert; and

11           the transmitting further comprises transmitting the alert to the user via the  
12 first delivery method and the second delivery method as indicated by the delivery  
13 mode.

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15       8. The method as recited in claim 1, wherein the mapping further  
16 comprises:  
17           defining one or more categories of alerts;  
18           assigning a delivery mode to each category; and  
19           categorizing the alert, thereby mapping the alert to the delivery mode  
20           of the category.

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22       9. The method as recited in claim 8, further comprising assigning a  
23 priority to each category, and wherein the assigning a delivery mode further  
24 comprises assigning a delivery mode to a category based on the priority assigned  
25 to the category.

1           10. The method as recited in claim 1, wherein:

2                 the delivery mode further comprises a primary delivery block specifying at  
3                 least one delivery action, and a secondary delivery block specifying at least one  
4                 delivery action;

5                 the mapping the alert to a delivery mode further comprises mapping the  
6                 alert to the delivery action specified in the primary delivery block and mapping the  
7                 alert to the delivery action specified in the secondary delivery block; and

8                 transmitting the alert to the user according to the delivery action specified  
9                 in the secondary delivery block if transmitting the alert to the user according to the  
10                 delivery action specified in the primary delivery block is unsuccessful.

1        11. The method as recited in claim 10, wherein the delivery actions  
2 specified in the primary delivery block and the secondary delivery block indicate a  
3 delivery method to be used to deliver the alert and whether an acknowledgement  
4 to the alert should be expected, and the method further comprises:

5              waiting for an acknowledgement to the transmission of the alert according  
6 to the delivery action of the primary delivery block if the delivery action of the  
7 primary delivery block indicates that an acknowledgement to the alert should be  
8 expected; and

9              waiting for an acknowledgement to the transmission of the alert according  
10 to the delivery action of the secondary delivery block if the delivery action of the  
11 secondary delivery block indicates that an acknowledgement to the alert should be  
12 expected, provided the alert is transmitted according to the secondary delivery  
13 block.

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15        12. The method as recited in claim 10, wherein:

16              the primary delivery block specifies a first delivery action that indicates a  
17 first delivery method and a second delivery action that indicates a second delivery  
18 method;

19              the transmitting the alert to the user according to the delivery action  
20 specified in the secondary delivery block further comprises transmitting the alert  
21 to the user according to the delivery action specified in the secondary delivery  
22 block if either the first delivery method indicated in the first delivery action of the  
23 primary delivery block, or the second delivery method indicated in the second  
24 delivery action of the primary delivery block fails to result in transmission of the  
25 alert to the user.

1           13. The method as recited in claim 10, wherein:

2           each delivery action further comprises:

3           a delivery method to be used to deliver the alert;

4           whether an acknowledgement to the alert should be expected;

5           a time period to wait for an acknowledgement if an

6           acknowledgement to the alert is expected; and

7           the method further comprises:

8                 waiting for an acknowledgement to the transmission of the

9                 alert according to the delivery action of the primary delivery block if

10                the delivery action indicates that an acknowledgement to the alert is

11                expected; and

12                 waiting for an acknowledgement to the transmission of the

13                alert according to the delivery action of the secondary delivery block

14                if the delivery action indicates that an acknowledgement to the alert

15                is expected, provided that the alert was transmitted according to the

16                secondary delivery block.

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2       14. The method as recited in claim 10, wherein the primary delivery  
3 block and the secondary delivery block each specify a first delivery action that  
4 indicates a first delivery method to be used to deliver the alert and whether an  
5 acknowledgement to the alert should be expected, and a second delivery action  
6 that indicates a second delivery method to be used to deliver the alert and whether  
7 an acknowledgement to the alert should be expected, the method further  
8 comprising:

9             waiting for an acknowledgement to the transmission of the alert according  
10 to each delivery action of the primary delivery block that indicates that an  
11 acknowledgement to the alert should be expected; and

12             waiting for an acknowledgement to the transmission of the alert according  
13 to each delivery action of the secondary delivery block that indicates that an  
14 acknowledgement to the alert should be expected, provided the alert is transmitted  
15 according to the delivery actions of the secondary delivery block.

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17       15. The method as recited in claim 14, wherein each delivery action that  
18 indicates to wait for an acknowledgement specifies a time period to wait for an  
19 acknowledgement, and wherein waiting for an acknowledgement further  
20 comprises waiting the specified time period for an acknowledgement.

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2       16. A centralized alert delivery system, comprising:  
3           an input/output (I/O) module configured to receive alerts from multiple  
4 alert sources;  
5           a mapping module configured to map an alert to a delivery mode; and  
6           a communications layer that interfaces to one or more communications  
7 modules, the communications layer being configured to receive the mapped alert  
8 and deliver the alert via a communications module according to the delivery mode  
9 associated with the alert.

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11      17. The centralized alert delivery system as recited in claim 16, wherein  
12 the mapping module is further configured to map the alert according to the source  
13 of the alert.

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15      18. The centralized alert delivery system as recited in claim 16, wherein  
16 the alert further comprises content, and wherein the mapping module is further  
17 configured to map the alert according to the content of the alert.

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19      19. The centralized alert delivery system as recited in claim 16, wherein  
20 the delivery mode specifies a delivery action that indicates a delivery method by  
21 which an alert associated with the delivery mode is transmitted.

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23      20. The centralized alert delivery system as recited in claim 19, wherein  
24 the delivery method is chosen from one of the following delivery methods: e-mail,  
25 instant messaging, SMS (short message service) messaging.

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2        21. The centralized alert delivery system as recited in claim 16, wherein  
3 the delivery mode further comprises one or more delivery blocks, each delivery  
4 block including one or more delivery actions, each delivery action specifying:

5              a delivery method by which an alert associated with the delivery mode is  
6 transmitted;

7              whether an acknowledgement to the alert is expected; and

8              if an acknowledgement to the alert is expected, a time to wait for the  
9 acknowledgement.

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11        22. The centralized alert delivery system as recited in claim 16, wherein  
12 the delivery mode further comprises one or more delivery blocks, each delivery  
13 block including one or more delivery actions, each delivery action specifying a  
14 delivery method by which the associated alert is transmitted and whether an  
15 acknowledgement to the transmitted alert is expected.

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17        23. The centralized alert delivery system as recited in claim 22, wherein  
18 each delivery action that indicates an acknowledgement is expected further  
19 specifies a time to wait for the acknowledgement.

1        24. The centralized alert delivery system as recited in claim 16, wherein:  
2              the delivery mode further comprises a primary delivery block and a  
3              secondary delivery block; and  
4              the communications layer is further configured to deliver the alert via the  
5              one or more communications modules according to a delivery method specified in  
6              the primary delivery block and, if delivery according to the primary delivery block  
7              fails, to deliver the alert according to a delivery method specified in the secondary  
8              delivery block.

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10        25. The centralized alert delivery system as recited in claim 16, wherein:  
11              the delivery mode further comprises a primary delivery block that includes  
12              a first delivery action that specifies a delivery method and a second delivery action  
13              that specifies a delivery method; and  
14              the communications layer is further configured to deliver the alert via the  
15              one or more communications modules according to the delivery method specified  
16              in the first delivery action and according to the delivery method specified in the  
17              second delivery action.

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19        26. The centralized alert delivery system as recited in claim 25, wherein:  
20              the delivery mode further comprises a secondary delivery block; and  
21              the communications layer is further configured to delivery the alert via the  
22              one or more communications modules according to a delivery method specified in  
23              the secondary delivery block if the delivery of the alert according to either the first  
24              delivery action or the second delivery action in the primary delivery block fails.

1       27. The centralized alert delivery system as recited in claim 16, further  
2 comprising a categories module that identifies categories into an alert may be  
3 categorized, wherein each category has an associated delivery mode; and  
4           the mapping module is further configured to categorize the alert into a  
5 category identified in the categories module thereby associating the alert with the  
6 delivery mode of the category.

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8       28. A computer system, comprising:  
9           a processor;  
10          an I/O module;  
11          memory; and  
12          an alert center stored in the memory, the alert center including:  
13            a subscription layer configured to receive an alert from an alert source and  
14 assign a delivery mode to the alert; and  
15            a communications layer configured to transmit the alert according to a  
16 delivery mode assigned to the alert.

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18       29. The computer system as recited in claim 28, wherein the alert center  
19 is further configured to monitor for an acknowledgement that the alert was  
20 successfully delivered.

1       30. The computer system as recited in claim 28, wherein the alert center  
2 is further configured to monitor for an acknowledgement that the alert was  
3 successfully delivered and, if an acknowledgment is not received within a  
4 specified time period, assign a backup delivery method to the alert and attempt to  
5 deliver the alert according to the backup delivery method.

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7       31. The computer system as recited in claim 28, wherein:  
8           the delivery mode further comprises a primary delivery block having a first  
9 delivery action and a second delivery action; and  
10          the communications layer is further configured to transmit the alert  
11 according to the first delivery action and the second delivery action of the primary  
12 delivery block.

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14       32. The computer system as recited in claim 31, wherein:  
15           the delivery mode further comprises a primary delivery block having a  
16 delivery action and a secondary delivery block having a delivery action; and  
17          the communications layer is further configured to transmit the alert  
18 according to the delivery action of the primary delivery block and, if delivery of  
19 the alert according to the primary delivery block fails, to transmit the alert  
20 according to the delivery action of the secondary delivery block.

1       33. The computer system as recited in claim 31, wherein:

2             the delivery action of the primary delivery block is a first delivery action;

3             the primary delivery block further comprises a second delivery action;

4             the first delivery action and the second delivery action further comprise a

5             time to wait for an acknowledgement that the alert was received; and

6             the communications layer is further configured to transmit the alert

7             according to the delivery action of the secondary delivery block if an

8             acknowledgement to the transmission of the alert according to the first delivery

9             action or the second delivery action of the primary delivery block is not received

10            with the time to wait identified by the first delivery action and the second delivery

11            action, respectively.

12        34. The computer system as recited in claim 28, wherein:

13             the subscription layer further comprises a categories module that includes

14             one or more categories into which an alert may be categorized, each category

15             having a delivery mode associated therewith; and

16             the subscription layer further comprises a mapping module configured to

17             categorize an alert received from an alert source, thereby associating the delivery

18             mode of the category with the alert.

1       35. One or more computer-readable media containing computer-  
2 executable instructions that, when executed on a computer, perform the following:  
3             receiving an alert from one of a plurality of alert sources;  
4             determining a delivery mode which specifies a delivery method by which  
5 the alert should be forwarded to a user;  
6             transmitting the alert to the user according to the delivery mode.

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8       36. The one or more computer-readable media as recited in claim 35,  
9 wherein the determining a primary delivery mode further comprises:  
10             determining the alert source from which the alert originated;  
11             identifying a category associated with the alert source; and  
12             identifying a delivery mode associated with the category.

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14       37. The one or more computer-readable media as recited in claim 35,  
15 wherein the transmitting the alert further comprises:  
16             identifying a delivery action associated with the delivery mode; and  
17             transmitting the alert according to the delivery action.

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19       38. The one or more computer-readable media as recited in claim 35,  
20 wherein the transmitting the alert further comprises:  
21             identifying a first delivery action associated with the delivery mode;  
22             identifying a second delivery action associated with the delivery mode; and  
23             transmitting the alert according to the first delivery action and the second  
24 delivery action.

1       39. The one or more computer-readable media as recited in claim 35,  
2 wherein:

3             the delivery mode further comprises a primary delivery block that specifies  
4             one or more delivery actions, and a secondary delivery block that specifies one or  
5             more delivery actions; and

6             the transmitting the alert to the user according to the delivery mode further  
7             comprises transmitting the alert to the user according to the delivery action of the  
8             primary delivery block and, if the transmission fails, transmitting the alert to the  
9             user according to the delivery action of the secondary delivery block.

10      40. The one or more computer-readable media as recited in claim 39,  
11 wherein:

12             the primary delivery mode includes more than one delivery action; and  
13             the transmission of the alert according to the primary delivery block is  
14             deemed to fail if the transmission of the alert according to the first or second  
15             delivery actions fails.

16      41. The one or more computer-readable media as recited in claim 39,  
17 wherein:

18             the primary delivery mode includes more than one delivery action; and  
19             the transmission of the alert according to the primary delivery block is  
20             deemed to fail if the transmission of the alert according to both the first and  
21             second delivery actions fails.

1       42. The one or more computer-readable media as recited in claim 35,  
2 further comprising monitoring for an acknowledgement that the alert was  
3 successfully received by the user.

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